

CLAIMS

1. A method of positioning the crankshaft of an
5 engine having a flywheel fitted to the engine crankshaft,
characterized in that the method comprises the steps
of:

- providing a first hole in the flywheel,
- providing a second hole in a stationary part of
10 the engine to line up accurately with the hole in the
flywheel once during each crankshaft revolution,
- manually cranking the engine until the holes in
the flywheel and the stationary part of the engine are
aligned, and
- 15 - inserting a locking pin into the aligned holes to
lock the crankshaft in a predetermined angular position.

2. A method according to claim 1, when used in an
20 engine of which the flywheel (18) has external teeth
that are engaged by a driving cog of an electrical
starter motor, and

characterized in that the step of manually cranking
the engine comprises:

- 25 - removing the starter motor,
- mounting on the engine using the same fixings as
the starter motor a manual cranking device having a cog
that meshes with the teeth on the flywheel and that is
secured to a shaft rotatable by means of a cranking
30 handle, and
- rotating the flywheel by means of the cranking
handle to position the flywheel.

3. A method according to claim 2, characterized in that
35 the hole in the engine that receives the locking pin is
located in such a manner as to prevent replacement of the

engine starter motor while the locking pin is in place in the aligned holes.

- 5 4. A method according to claim 3, characterized in that the hole in the flywheel is formed so that it is not normal to the end surfaces of the flywheel.

- 10 5. An internal combustion engine having
- a crankshaft,
 - a toothed flywheel mounted on the crankshaft,
 - a starter motor have a driving cog that meshes with the teeth of the flywheel,
 - 15 - a housing enclosing the flywheel,
 - a first hole formed in the flywheel, and
 - a second hole formed in the housing to line up accurately with the hole in the flywheel once during each crankshaft revolution, and
 - 20 characterized in that the hole in the housing is covered by the starter motor and is only accessible after removal of the starter motor.

- 25 6. A manual cranking device for use with an engine as claimed in claim 5, and
- characterized in that the device comprises :
- a casing for mounting to the engine in place of the starter motor,
 - 30 - a shaft journaled in the casing,
 - a cog fast in rotation with one end of the shaft for meshing with the teeth of the engine flywheel, and
 - a connector at the other end of the shaft for receiving a cranking handle to permit the flywheel to be
 - 35 cranked manually,

- the casing being shaped to avoid obstruction of the hole in the flywheel housing so as to permit a locking pin to be inserted into and removed from the aligned holes in the flywheel and the housing while the cranking device is fitted to the engine.